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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/578,217	05/23/2000	Li-Huan Jen	9826-014-999	4631

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EXAMINER	
PSITOS, ARISTOTELIS M	

ART UNIT	PAPER NUMBER
2653	

DATE MAILED: 02/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/578,217	JEN, LI-HUAN	
	Examiner	Art Unit	
	Aristotelis M Psitos	2653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Applicant's response of 11/19/03 has been considered with the following results.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

1. Claims 10-16 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ichikawa et al considered with Kawamura et al.

Ichikawa et al discloses in a data signal-processing environment the reception of information, detecting various occurrences as well as subsequently processing such events. Applicant's attention is

drawn to figures 1 and 2 for instance as well as col. line 28 to col. 2 line 64 for instance. The examiner interprets the above as meeting the first two claimed steps of claim 10.

The examiner interprets the disclosure commencing at col. 9 line 40 through col. 12 line 50 as providing for the counting and storing steps of claim 10. Hence the limitations of claim 10 are met under 102 requirements.

If applicant can convince the examiner that Ichikawa et al does not count the number of errors, then the examiner would additionally rely upon Kawamura et al reference as teaching such an ability – see col 27 line 65 to col. 28 line 17.

It would have been obvious to modify the base system of Ichikawa et al with the above noted teaching of counting the number of errors – motivation is to provide appropriate threshold determinations as required for error correcting.

With respect to the limitations of claims:

a) 11 – the examiner concludes the amount of predetermined time is as recited because the correction is performed in real time.

b) 12-16 – see the above noted passage at col. 2 lines 38 + which reference in Ichikawa appropriate error types.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

2. Claims 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as relied upon with respect to claims 10-16 as stated above in paragraph 1 and all further considered with Nakamura et al.

There is no clear indication in the base reference that there is appropriate selection of schemes upon reaching threshold levels.

Nakamura et al teaches in this environment the ability of error correcting including the additional ability of selection/performing various error correction schemes predicated upon reaching/detecting threshold values – see figure 7 and its' associated disclosure.

It would have been obvious to modify the system of references as stated above in paragraph 1 with the additional teaching from Nakamura et al - motivation is as discussed in Nakamura et al to appropriately correct for errors.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

3. Claims 1- 6,8,18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as relied upon above with respect to claim 10 and further considered with LoGalbo et al.

Claim 1 is drawn to apparatus as opposed to the method limitations recited in claim 10.

Nevertheless, the above combined references – as analyzed above in paragraph 1 also disclose hardware – apparatus to perform the method steps. In addition, the claims also require an "averaging" or average of the error rate to be generated.

The ability in this environment to count either the number or errors, or an average thereof, and hence generate an average "error" rate is taught in the LoGalbo et al reference – see the discussion at col. 4 lines 1-13.

It would have been obvious to modify the base references as analyzed above in paragraph 1, with the additional teaching from LoGalbo et al, motivation is to perform an equivalent counting/generating ability based on "averages" as opposed to the events themselves. Varying the threshold determining point upon such an average will of course lead to a more robust system. Furthermore, the examiner concludes that the appropriate limitation of claim 2, clock and clock counter is inherently present in the above base system. Obviously there is a set time (clocking time) for which the system operates and the use of clock signals and counters therefor is believed to be inherent in order for the above systems to operate.

Alternatively, if applicant can convince the examiner that there is no clock source and counting ability in the above combined system, then the examiner would rely upon the Shimawaki et al as stated in the previous OA for its teaching of such.

It would have been obvious to modify the base system of Kelly with the above system of Shimawaki et al in order to perform the error rate accountability disclosed in the base references, motivation is to use existing circuitry and hence save valuable resources such as time in designing circuitry to accomplish the desired measurement of the bit errors.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

4. Claims 7,9 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1, 8 and 18 above, and further in view of Nakamura et al and all further with Maeda et al.

Nakamura et al teaches in this environment the ability of error correcting including the additional ability of selection/performing various error correction schemes predicated upon reaching/detecting threshold values – see figure 7 and its' associated disclosure.

The base system to Ichikawa et al does disclose the ability to stop recording/decoding if the error is uncorrectable and hence the examiner concludes that the "interruption" limitation of these claims are met. Alternatively, if applicant can convince the examiner that such is not the case, then as is well known in this environment, if the error can not be corrected for, system operations – such as recording are normally stopped – as is further taught by the Maeda et al system.

It would have been obvious to modify the base referenced with the above additional interruption of optical system operations predicated upon an interruption due to an unrecoverable/uncorrectable error determination.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. JP 10-05003 – which teaches the interruption of system operations in a recoding device if the appropriate

number of error flag pulses and averaging thereof is used in the comparator circuitry. Shoji et al – also teaches in the optical recording art the detection of "error" as upon appropriate thresholds being surpassed, appropriate actions are taken. In JP 11-273266 see operation of EC block 35 & counter 37.

Hard copies of the application files are now separated from this examining corps; hence the examiner can answer no questions that require a review of the file without sufficient lead-time.

Any inquiries concerning missing papers/references, etc. must be directed to Group 2600 Customer Services at (703) 306-0377.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M Psitos whose telephone number is (703) 308-1598. The examiner can normally be reached on M-Thursday 8 - 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (703) 305-6137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aristotelis M Psitos
Primary Examiner
Art Unit 2653

AMP